Annual Report 2000 of the Environmental Finance Center Network

University of New Mexico EFC

The University of New Mexico EFC was established in 1992 as the first Environmental Finance Center

The University of New Mexico Environmental Finance Center (UNM EFC) is dedicated to helping state, local, and tribal governments meet environmental infrastructure needs and regulatory compliance through state and local capacity building. This includes enhancing technical, managerial, and financial capabilities to achieve consistent and sustainable regulatory compliance and to develop sustainable infrastructure. The UNM EFC assists in local capacity building by various methods such as: examining alternative approaches to meeting regulatory compliance or environmental infrastructure needs; empowering communities to act as the "drivers" for their own projects; assisting with procuring professional services; presenting funding alternatives; acting as a bridge between federal, state, local and tribal governments; presenting neutral analyses of issues and/or projects, and gathering stakeholder input.

In this issue...

Introduction 1
Accomplishments 1
New Initiatives 6
Network Collaborations 8

To complete its projects, the UNM EFC relies on many tools and techniques, including stakeholder meeting facilitation; internal agency workgroup facilitation; advisory group development; financing alternatives presentation and directories; technology transfer; charrettes, conferences and workshops; research publications and reports; and one-on-one assistance to state, local, and tribal governments and environmental service providers (e.g., water and wastewater systems). The UNM EFC attends many conferences, trainings and workshops as a participant, exhibitor, and presenter to gather information to share with its clients and to disseminate information regarding UNM EFC projects that could be of interest and benefit to other entities.

The UNM EFC has been extremely active over the past year and has completed numerous projects throughout the five states in Region 6 as well as six additional states in Regions 1, 2, 5, and 8 (NM, TX,

OK, AR, LA, CO, MT, NV, WI, NY, VT). Those projects include:

- Capacity Development for Tribal Water Systems.
- Assistance to New Mexico SRF Applicants.
- Infrastructure Capital Improvement Plan (ICIP) Cost Estimating Guide.
- Independent Analysis of Hydroscope Technology for the City of Albuquerque, NM
- Capacity Development for Nizhnii Tagil, Russia Vodokanal.
- Texas Water System Study.
- Mora County Unified Source Water Protection Pilot Project.
- Sustainable Urban Environments Initiative.
- Restoring Ecological Balance in Native American Communities through Comprehensive Community Planning, Sustainable Development, and Ecological Design.
- Analysis of Water & Wastewater Funding Sources & Structures in Vermont.
- Resource Geographic Information System Program
- ESRI certified ArcView Training Instruction.

In addition, the UNM EFC is initiating projects to develop an Operator Certification Institute for Tribal Water Systems, develop Resource-Based Source Water Protection Plans for water systems in 7 different states (this project involves 5 EFCs), and a Clean Air Investment Fund for the El Paso/Las Cruces/Juarez airshed.

ACCOMPLISHMENTS

Capacity Development for Region 6 States

During 2000, the EFC continued to assist the Region 6 states of Arkansas, Louisiana, New Mexico, Oklahoma, and Texas with the completion and implementation of their capacity development strategies, as required under the 1996 Safe Drinking Water Act (SDWA) amendments. Assistance included stakeholder meetings, meetings with the states to discuss options for implementing the strategies, and other related activities. The UNM EFC participated in the Region 4 and Region 6 annual capacity development meeting, using this opportunity to meet with EPA representatives from Regions 4, 6, and EPA Headquarters as well as representatives from each of the states. The UNM EFC shared information between the states and responded to technical questions at the meeting.

All Region 6 states were able to complete their capacity development strategies prior to the October 1, 2000 deadline and the EFC assisted each state in meeting this deadline.

Capacity Development for States Outside of Region 6

This collaborative project with the Environmental Finance Center at Boise State University (EFC-10) is funded through a grant from the USEPA Office of Ground Water and Drinking Water. In the first year of the grant, the UNM EFC assisted New Mexico, Texas, and the Region 6 tribes. In the second year of the grant, the UNM EFC assisted the following states outside of Region 6: Nevada, Wisconsin, and New York. The assistance to New York was done through the Syracuse EFC in New York. In the third year of the grant, the EFC assisted Nevada, Montana, and Colorado. The assistance program varies with each state depending on the state's need. The UNM EFC feels strongly that each state has unique needs with capacity development and that the UNM EFC must tailor its work to meet the particular needs.

Actual assistance may include information sharing, review of requirements and deadlines, review and

comment on documents, participation in advisory groups, facilitation of stakeholder meetings, facilitation of internal staff meetings, or others.

All of the states the UNM EFC worked with under this contract were able to complete their capacity development strategies prior to the October 1, 2000 deadline and the EFC assisted in meeting this deadline.

Capacity Development for Tribal Water Systems

This assistance effort has evolved into assistance provided directly to particular tribes to help them improve capacity deficiencies. The assistance is tailored for the needs of each tribe and may be requested by a tribe directly or may be requested through a referral from EPA or the Indian Health Service (IHS). Examples of assistance are helping the Mescalero Apache Tribe form a water utility board, training the Acoma Pueblo on chlorination techniques, assisting tribes with sampling and analysis, assisting EPA with a comprehensive performance evaluation of the Santo Domingo Pueblo water system, meeting with the Jicarilla Apache Tribe regarding funding possibilities, and many others.

Assistance to New Mexico SRF Applicants

The UNM EFC has been assisting the New Mexico Finance Authority (NMFA) to try to bring the State Revolving Loan Fund (SRF) process to small and medium-sized communities in New Mexico. To date, the SRF program has had difficulties moving money to these communities and the EFC has been helping to fill out forms, meet requirements, explain the program, initiate engineering or environmental documents needed for the loans, gather financial information, and market the overall program. The UNM EFC has been able to assist NMFA in greatly expanding the amount of money now targeted for actual water system construction from the SRF program.

Infrastructure Capital Improvement Plan (ICIP) Cost Estimation Guide

All Cities and Counties in New Mexico are asked to provide five year capital improvement plans documenting all of their infrastructure needs. As part of this plan, the local government entities must be able to estimate the cost of the proposed infrastructure needs. Some communities do not have technical expertise, such as engineering, on staff and can not afford to hire this expertise to complete the ICIP. Therefore, it is necessary to have a cost-estimating guide that is simple and easy to use by the local government personnel. Such a guide was completed by the EFC in 1995. Due to cost increases, it is necessary to update the cost estimating guide. It will also provide the EFC with an opportunity to make other adjustments to the guide.

Independent Analysis of Hydroscope Technology for City of Albuquerque

The City of Albuquerque is seeking an independent analysis of the cost-effectiveness of using a particular non-destructive pipe analysis technique. The technology can detect certain types of problems in ductile iron and cast iron pipe. An associated technology can then be used to repair areas that are vulnerable to leaks without having to remove and replace the pipe. The City seeks an independent analysis of the cost-effectiveness of using this technology as part of the City's overall pipe repair and replacement program. Considerations include the fact

that only a portion of the City's pipes are cast iron and ductile iron; the types of leaks the City routinely experiences may or may not be detectible with the technology; repairing the pipes with this technology will provide a different pipe life rather than replacing the pipes; pipe repairs in this manner do not allow for replacement of pipe appurtenances; pipe inspection may prevent breakages that can cause considerable damage to facilities near the break and tremendous water loss; and anticipating breaks would allow the City to be proactive with its repair program. The EFC will be evaluating the proposed technology in the context of the overall pipe maintenance program.

Capacity Development for Nizhnii Tagil, Russia Water System

This effort entails a capacity development project for the Nizhnii Tagil Vodokanal in Nizhnyii Tagil, Russia. The UNM EFC arranged, organized, and supported a 13-day study tour in the United States for the Director of the Nizhnii Tagil Vodokanal and two additional people. This tour included visits to Washington, DC; Dallas, Texas; Albuquerque, New Mexico; and Denver, Colorado.

In addition, the UNM EFC will provide funding to the Nizhnii Tagil Vodokanal for technical, managerial, and financial capacity improvements to the water system.

Texas Water System Study

The Texas Natural Resource Conservation Commission (TNRCC) TNRCC contracted with the UNM EFC to conduct a three part study: 1) information related to the establishment of reasonable water rates for regulated utilities, 2) characteristics of well-run water systems by type of ownership, and 3) affordability of water treatment alternatives.

Establishment of Reasonable Water Rates for Regulated Utilities: the TNRCC was given additional rate flexibility with 1997 legislation. In order to take advantage of some of the flexibility allowed, the TNRCC wanted some detailed information from IOUs. The detailed information included line item budgets, staffing, and equipment useful life. The study also included an on-site interview component to discuss rate case issues with IOUs.

Development of Characteristics of Well-Run Water Systems: in the overall capacity development program there is a need for information regarding the characteristics that define a well-run water system. In this section, systems were contacted and asked to complete a detailed survey form. The UNM EFC staff also visited systems to conduct personal interviews and conducted phone interviews.

Affordability of Water Treatment Alternatives: the determination of the affordability of installing water treatment technologies is a two-fold process. One step in this process is to determine dollar amounts that communities of various sizes and characteristics can afford. The other step in the process is an investigation of the types of technologies that can be used to remove particular contaminants and the estimated cost of the technology. The two components need to be combined together to develop an affordability scenario for TNRCC.

This study was completed in November 2000 and a final report was sent to TNRCC and some of the water systems who participated in the study.

Mora County Unified Source Water Protection Pilot Project

An alternative approach to a single system source water protection plan is a unified source water protection plan (USWPP). This type of approach brings together water systems that share the same or similar sources and the same or similar contamination threats to develop a single plan to cover the entire area. The unified plan increases the available resources - both personnel and financial - and may also increase the ability to enforce the plan once completed. Often times, a single water system does not have the ability to impact an area large enough to adequately protect the source waters.

The western part of Mora County, New Mexico was chosen as the location for a pilot project, which was jointly funded by the U.S. EPA and the USDA Rural Utility Service (RUS). There are 16 water systems in the western part of Mora County that share the same or similar source of water and face the same types of contamination threats. To conduct the project, the University of New Mexico Environmental Finance Center (EFC) teamed up with the Rural Community Assistance Corporation (RCAC) and La Jicarita Enterprise Community (LJEC). Each team member brought various strengths and expertise to the project to provide a multi-disciplined approach. Local perspective was enhanced by the involvement of La Jicarita, an Enterprise Community that encompasses Mora County and is intimately involved in all facets of the economic development of Mora County.

The UNM EFC established and then assisted the Western Mora County Source Water Protection Council complete a draft Unified Source Water Protection Plan.

Sustainable Urban Environments Initiative

On October 3, 2000, as part of the larger Sustainable Urban Environments Initiatives Program Grant, the Environmental Finance Center at UNM hosted a charrette to explore the opportunities to turn negative environmental problems into positive assets. The charrette was held in the western Fifth Ward of Houston, Texas in two locations – an elementary school and a community center – and was co-sponsored by the City of Houston Planning Department. The charrette, which included a driving and walking tour of the neighborhood to acclimate participants to the issues, focused on such issues as how to turn areas that are just used as garbage dumps into attractive pieces of property. Other issues for the charrette were how to address the incompatible uses of industrial facilities and residential housing, how to encourage companies to share assets (i.e., take the "garbage" from one industry and turn it into the input for another industry.)

The charrette prompted a number of ideas for the community and a report was prepared to summarize those ideas. In addition, the UNM EFC has provided Houston with information on possible grant programs to fund some of the ideas.

Restoring Ecological Balance in Native American Communities through Comprehensive Community Planning, Sustainable Development, and Ecological Design

The objective of this project is to assist Native American communities to identify ways to restore ecological balance through the appropriate use of comprehensive community planning, sustainable development and ecological design techniques. The intent is to assist a few Native American communities with specific activities that fit within the overall objective of restoring ecological balance. These communities will then be used as role models to inform other Native American communities about how to

accomplish similar sustainable community development goals.

The UNM EFC worked with the Jicarilla Apache Nation to conduct a comprehensive planning workshop, and also assisted the Sandia Pueblo and the Pojoaque Pueblo with information.

Analysis of Water and Wastewater Funding Sources & Structures in Vermont

Working with the Syracuse EFC as the lead, the UNM EFC and EFC 9 traveled to Vermont in July 2000 to assist the state drinking water primacy agency and the Rural Utility Service with an analysis of the loan structures in Vermont. A charrette was held to review and assess funding programs available for water and wastewater systems, and measure how programs can be delivered more effectively.

New Mexico Resource Geographic Information System

The Resource Geographic Information System (RGIS) Program was established by the New Mexico state legislature in 1992 to assist state and local governments in developing and implementing GIS programs. RGIS also supports the goals of the New Mexico Information Technology Council and its associated Geographic Information System Advisory Council. Three UNM public service and research units comprise the RGIS Team including the EFC Director, representing the New Mexico Engineering Research Institute, the Earth Data Analysis Center, and the Bureau of Business and Economic Research.

RGIS facilitates the use of GIS in New Mexico in three ways: mapping, communicating, and educating. First, it provides counties and municipalities with public maps in a format appropriate for the most commonly used GIS software. Second, it assists state and local governments with interactive communication and cooperation in the use of GIS. Third, it educates public organizations about the advantages of GIS and trains them in its use. Thus, RGIS promotes statewide-use of GIS for planning and spatial analysis of current and historical trends throughout the state. For more information refer to the RGIS web page at http://rgis.unm.edu:8080.

ESRI-Certified ArcView Training Instruction

Margie Krebs-Jespersen of the EFC staff is an ESRI Authorized ArcView GIS (geographic information system) instructor. The Introduction to ArcView GIS course provides instruction in the basic skills needed to use the software's display editing, analysis, and presentation mapping functions. Classes are typically offered quarterly.

NEW INITIATIVES FOR 2001

The new initiative for the UNM EFC are highlighted below. These initiatives build upon the work efforts of the UNM EFC for the past several years.

Resource-Based or Unified Source Water Protection

As the lead EFC for this project, the UNM EFC is working with the EFCs in Maryland, North Carolina, Boise State and New York, to develop resource-based or unified source water protection plans for clusters of communities in 7 different states. This project builds upon the work performed under the Mora County Unified Source Water Protection

Plan Pilot Project and the skills of the other EFCs in the project.

Tribal Operator Certification Institute

Although officially awarded in 2000, the UNM EFC will kick off this project in January 2001, under an assistance agreement with EPA Region 6. This project will involve establishing an Institute at UNM to train and certify drinking water operators. This establishment includes developing a curriculum that is well-suited to tribal operators and that can test operators on the skills and knowledge that they truly need to operate their type of water system. The Certification Institute will include training and testing.

Clean Air Investment Fund

The El Paso, Texas/Juarez, Mexico/Las Cruces, New Mexico airshed has many problems related to air pollution. Complicating the issue is the bi-national border and the differing regulations on the U.S. and Mexican side of the border. EPA developed an Economic Incentive Program to promote various approaches to address regional air pollution. One of these approaches is a Clean Air Investment Fund. The EPA Region 6 Border Office in El Paso wants to pilot the idea of a Clean Air Investment Fund (CAIF) for the El Paso/Juarez/Dona Ana County airshed.

A CAIF is a type of Economic Incentive Program that allows sources facing control costs that exceed a designated cost-per-ton benchmark to pay into the fund in lieu of installing the required controls. While sources participating in a CAIF have not installed the required controls, they are otherwise obligated to meet all other regulatory requirements that apply to them. The fees in the fund are managed by a separate entity. The fund manager may be a regulatory agency or a third party. The fund manager uses the pooled payments collected by the fund to seek equivalent and presumably less costly emission reductions. (Proposed Economic Incentive Program Guidance, Environmental Protection Agency, March 1999.)

The UNM EFC will partner with the California State University EFC to complete this study. The work will involve discussions with stakeholders on both sides of the border, discussions with individuals with particular expertise in establishing an investment fund, and development of a Clean Air Investment Fund Charter. The Charter will include items, such as: authority for creation, scope of activity, managing authority, administrative procedure for using the fund, bylaws governing paying into the fund, drawing on the fund, closure of the fund, federal, state, and local regulations necessary for implementation of the fund.

Capacity Development Partnering Efforts

As a natural continuation of some of the UNM EFCs capacity development efforts that the have been ongoing since 1996, the UNM EFC will be assisting states with innovative ways to help systems partner. This effort will be going on in Colorado and possibly will start in Nevada during 2001. In addition, the UNM EFC will assist Region 6 states with this effort to the extent that they are interested.

Capacity Development Continuation

Although the states have submitted their capacity development plans, the UNM EFC will be assisting the states in Region 6 with implementation activities associated with the plans.

Capacity Development Activities for the Tribes

As a continuation of the capacity development assistance work for the tribes, the UNM EFC will continue to work with the tribes to increase their technical, managerial, and financial capabilities to operate their water systems. These efforts will include one-on-one assistance, group training, a web site, sampling and analysis assistance, and several other activities.

EFC NETWORK COLLABORATIONS

The UNM EFC has collaborated with a number of EFCs this past year on a variety of projects. Those collaborations are extensive and are listed in the following tables:

PROJECTS

Project	EFCs Included in Collaboration
Sustainable Urban Environments Initiative	Maryland EFC (lead), Cleveland State EFC, EFC @ UNC and the UNM EFC
Analysis of Water & Wastewater Funding Sources & Structures in Vermont	Syracuse EFC, EFC9, and UNM EFC
Clean Air Investment Fund	EFC9 and UNM EFC
Resource Based Source Water Protection	UNM EFC (lead), Syracuse EFC, Maryland, Boise State EFC, and EFC @ UNC
Nizhnii Tagil Capacity Development Assistance	Syracuse EFC and UNM EFC
Capacity Development Assistance to States	Boise State EFC and UNM EFC

CONFERENCES

Name of Conference	Date and Location	EFC Involvement
New Mexico Infrastructure	Albuquerque, NM,	EFC Presentations, EFC Director was

Financing Conference	May 16–18, 2000	Utility Track Co-Chair, EFC on planning committee, EFC Exhibit Table
Small Drinking Water and Wastewater Systems Technology Conference	Phoenix, AZ, January 12–14, 2000	Two EFC Presentations, Papers in Conference Proceedings
Independent Water and Sewer Companies of Texas Annual Conference	Austin, TX, February 18, 2000	EFC Presentation
5th National Tribal Conference on Environmental Management	Lincoln City, OR, May 9–11, 2000	Two EFC Presentations
Association of State Drinking Water Administrators Annual Conference	Portland, OR, October 2 –5, 2000	EFC Presentation
Council of Infrastructure Financing Agencies Annual Conference	Orlando, FL, November 13 -15, 2000	EFC Presentation
NAWA Conference	Phoenix, Arizona, October 2000	Participant
Municipal League Annual Meeting	Carlsbad, NM, July 2000	Participant
Inorganic Contaminants Workshop	Albuquerque, NM, February 27 –29 2000	Participant